

Original article

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Forest Regeneration in the Conditions of the Southern Taiga on the Example of the Spruce Stands of the «Kologrivsky Forest» Nature Reserve

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Abstract. The article raises questions of natural regeneration and ecological aspects of spruce forests. At the beginning of the article, the purpose of the study is announced, the relevance of the study is described. Natural regeneration of tree species is one of the most pressing problems of modern society, since artificial forest regeneration over time can lead to irreversible environmental consequences. The purpose of this work is to study and substantiate the natural regeneration of spruce forests in the «Kologrivsky forest» reserve in the Kostroma region. In the main part of the article, methods and results of field studies are presented in the form of conclusions and graphs, detailed answers to all the questions voiced in the introductory part are given. At the end of the article, based on the results of the conducted research, it was concluded that the formation of coniferous plantations in a natural way depends on the quantity and quality of the undergrowth, as well as the indicators of its viability and growing conditions. The greatest losses in height gain occur under unfavorable conditions for the growth of spruce undergrowth that is losing vitality.

Key words: forest regeneration, spruce, *picea abies*, nature reserve, Kologrivsky forest

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